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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,808	09/08/2003	William Steinway	10897-024001	7090

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EXAMINER

PIHULIC, DANIEL T

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 07/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/656,808

Applicant(s)

STEINWAY ET AL.

Examiner

Daniel Pihulic

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
 Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2005.
 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-4, 9-12 and 17 is/are rejected.
 7) ☒ Claim(s) 5-8 and 13-16 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 20050505.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152).
 6) ☐ Other: _____.

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1. Applicant's arguments with respect to claims 1 and 2 have been considered but are moot in view of the new ground(s) of rejection.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US5646907 in combination with US680991. The US5646907 reference discloses the utilization of a system that transmits a microwave (see column 2, line 17) or laser (see column 2, line 13) pulses of varying frequency (see column 5, line 43) and monitoring acoustic vibrations to detect mines (see column 3, line 53) as recited in the claims. The difference between the US5646907 reference and the claims is that the claims recite the detection of landmines instead of water mines and detecting electromagnetic signals associated with the vibrations instead of acoustic signals associated with the vibrations. The US680991 reference teaches that it was well known in the art to utilize a system that transmits laser pulses and detects electromagnetic signals associated with the vibrations of a landmine (see Figure). It would have been obvious to modify the US5646907 reference to be utilized to detect electromagnetic signals associated with the vibrations of a landmine as motivated by the US680991 reference to enable the US5646907 system to detect landmines to help prevent injuries or damage.

4. Claims 3 and 11 are rejected under 35 U.S.C. 03 as being unpatentable over US5646907 in combination with US680991 as applied to claims 1 and 2 above, and further in combination with US6069843. The claims additionally recite removing frequencies not of interest. The US6069843

reference teaches that it was well known in the art to removing frequencies not of interest with a filter. It would have been obvious to modify the previous combination of references to utilize a filter as motivated by the US6069843 reference to remove frequencies not of interest reference to enable the system to detect only objects of interest.

5. Claims 9, 10 and 17 are rejected under 35 U.S.C. 03 as being unpatentable over US5646907 in combination with US680991 as applied to claims 1 and 2 above, and further in combination with US6838671. The claims 9 and 17 additionally recite the utilization of an audible alarm and claim 10 recites the utilization of a metal detector. The US6838671 reference teaches that it was well known in the art to an alarm and to utilize a metal detector in combination with other mine detecting equipment. It would have been obvious to modify the previous combination of references to utilize an alarm and to utilize a metal detector as motivated by the US6838671 reference it indicate when an object is detected and to increase the detectors capability by utilizing a combinations of different detectors.

6. Claims 5-8 and 13-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pihulic whose telephone number is 571-272-6977. The examiner can normally be reached on Tuesday through Thursday from 5:30 a.m. to 4 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza, can be reached on 571-272-6979.

The fax phone numbers for the organization where this application or proceeding is assigned are:

703-872-9306 for official responses, and

571-273-6977 for unofficial communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-3600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Daniel Pihulic
Primary Examiner
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